November 2, 1971

MEMORANDUM

TO:

NEPACCO

c. c.

Godfrey Moll

Freylon Coffey

Ron Riggs

J. J. Rattray

FROM:

Rick Bagby

SUBJECT:

Irrigation

0751

40030398 SUPERFUND RECORDS

Reference your memo of September 24, 1971, in which you outline the profile of the waste water stream your are currently discarding onto the field directly west of building V-11.

Grab samples on October 15 and October 20 were assayed in our control laboratory with the following results:

	lst sample	2nd sample	NEPACCO Profile
COD	27,900 pp,	22,700 ppm	412 ppm
pН	9, 58		7 - 8

In addition, a glycol determination showed the sample contained 4.5% ethylene glycol.

Because of the wide variation in COD between the NEPACCO Profile and the grab samples we would like to receive an assay weekly on a typical discharge onto the field. We would also like to receive the number of discharges per week and the volume of each.

Samples may be sent to our laboratory (Springfield) or assays may come from an independent laboratory of your choice.

If you need any further information, please contact me.

Rick Bagby

RB:er

 $_{0}\omega$

. ATTACHMENT #2

May 10. 1971

c.c.

MEMORANDUM

TO:

Godrey Moll

Rick Bagby

Milton Chamberlin

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Freylon Coffey

John Lee

Ed Michaels

J. J. Rattray

J. E. Rundell

Davey Vanderhoof

FROM:

Ron Riggs

SUBJECT:

Inspection of Verona Plant by Allan Dolph, Missouri

State Water Pollution Board

May 4, 1971, the Verona Plant was visited by Mr. Allan Dolph, representative of the Missouri Water Pollution Board, to investigate an inquiry made by Mr. Davis, an owner of a dairy farm downstream from Hoffman-Taff on Spring River.

After collecting miscellaneous data such as products made, size of plant, etc., Mr. Dolph requested a tour of the plant. Following are the items that were of concern to him:

- The extremely high values of B. O. D. 's and C. O. D. 's that we recorded at various points in our waste streams.
- (2) A pool of waste hexacholorophene just to the southeast of building 11, the toxic materials handled by NEPACCO getting into the plant tributary and NEPACCO's sloppy operations.
- The inaffectiveness of our chemical sewer treatment facilities and the strong odor at our sewer sump and lack of state permits for both our pilot plant and lagoons.
- (4) The appearance of our in-plant tributary and the possibility of in-plant flooding with subsequent injection of sludge, toxic chemicals, etc., into Spring River (NEPACCO chemicals and waste stored below flood level). He poked down through 6" to 8" of black sludge, as he walked, this stream.
- -: (5) Boiler blowdown (hot) going into tributary -- also water softener blowdown.
 - (6) The strange algae growing in tributary which he identified as sphaerotilus.
 - (7) Injection of nutrients and other chemicals into Spring River via underground seepage from our chemical sewer lagoons -- causing rampant growth of sphaerotilus and discoloration of the creek bed. He noticed limited growth of sphacrotilus at the first bridge below the plant.

Page 2 of 2

After the tour, Mr. Dolph called John Schondelmeyer, with the water pollution board and reported his findings. Before leaving, Mr. Dolph said he would send us his recommendations by mail.

The following are verbal points and recommendations made by Mr. Dolph during his visit:

- (1) Any contact we make with the Missouri Board should be in writing --to include any contacts with agencies concerned with pollution.
- (2) Permits are required for any type of sanitation facility including lagoons.
- (3) We should immediately hire waste treatment specialists for complete inplant waste study.
- (4) We should modify our sampling methods, i.e. refrigerated sample during transport to Springfield and more selective sampling sites.
- (5) We should install baffles between our lagoons so as not to short circuit the lagoons.
- (6) We should contact the Crowder Waste Water Treatment School at Neosho for possible help in analyzing our waste water content.
- (7) Removal of any high temperature water injection into our Spring River tributary.
- (8) We should coat our lagoons with at least two feet of clay or bentonite -this would be dependent upon final study by Missouri Geological Survey.

A follow-up call was made to Jim Odendahl (board representative who visited the plant three months ago) Friday, May 7th. He said he would meet with us the 18th, 19th or 20th of May and requested that we have a timetable outlined for design, construction, and startup of our final chemical waste treatment facilities.

Ron Riggs

RR:er

586

BASIN OFFICES

Room 449, State Office Building 615 East 13th Street Kansaz City, Missouri 64106 Telephone 816 274-6675

8480 Watson Road St. Louis, Missouri 63119 Teicphone 314 849-1313

James A. Dunn Special Assistant Attorney General



MISSOURI WATER FOLLUTION BOARD

THE DEPARTMENT OF PUBLIC HEALTH AND WELFARE
112 WEST HIGH, P. O. BOX 154
JEFFERSON CITY, MISSOURI 65101
TELEPHONE 314 635-9117

G. Mck

Robert A. Mueller, Chairman

Theodore G. Scott, Vice Chairman Buffato

Joe Bolger, Jr.

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Thomas J. Fischer, M. D. Hannibal

Clarence C. Houk

Raymond Krebs Springfield

Jack K. Smith Executive Secretary

5.8 Verona

February 5, 1971

Hoffman-Taff, Inc. P.O. Box 1246 S.S.S. Springfield, Missouri 65805

Attention: James Rundell, Vice President

Gentlemen:

A survey of the pilot waste treatment plant serving your operation at Verona was made on January 21, 1971. This letter will confirm comments made to Mr. Richard Bagby at that time.

Seepage and overflow of the holding lagoons was reaching the small creek and is a source of concern because of the potentially toxic nature of the material involved. Mr. Bagby stated that the consulting engineers, Black & Veatch, were in the final phases of analyzing the waste stream and designing the necessary treatment facilities. We would appreciate being advised as to when we may expect to receive final plans and specifications for our review. In the meantime some steps should be taken to eliminate the present lagoon overflow and seepage.

Your past cooperation has been appreciated and we look forward to working with you on this project in the future.

Yours truly,

James P. Odendahl, P.E. Industrial Waste Engineer

JPO/aw

CC: Richard Bagby

7 51660

SALE AND SERVICE AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of November, 1969, by and between HOFFMAN-TAFF, INC., a Missouri Corporation, with its principal office in Springfield, Missouri, hereinafter referred to as "HOFFMAN," and NORTHEASTERN PHARMACEUTICAL & CHEMICAL CO., INC., a Delaware Corporation, hereinafter referred to as "NEPACCO."

WITNESSETH:

WHEREAS, Hoffman is engaged in the production of chemicals at its production plants at Springfield and Verona, Missouri, and

WHEREAS, there is certain installed production equipment at the Verona, Missouri, facilities of Hoffman, and

WHEREAS, NEPACCO desires to buy said production equipment and lease from Hoffman the space wherein said equipment is located and begin the immediate manufacture of chemicals therein, and

WHEREAS, NEPACCO desires to utilize certain employees of Hoffman in the production and maintenance of such facilities at Verona, Missouri,

NOW, THEREFORE, it is agreed between the parties as follows:

1. Hoffman agrees to sell, transfer and convey to NEPACCO, and NEPACCO agrees to purchase from Hoffman, in the present condition thereof,

certain installed chemical production equipment, more fully described in Exhibit "B" hereto attached and made a part hereof, none of which, and no equipment subsequently installed, shall be deemed a part of the realty in which it is located. No warranties of any kind are made by Hoffman as to the present condition, efficiency, capacity, state of repair, or usefulness of such equipment but Hoffman warrants that it has good title to the said equipment free of all liens and encumbrances.

The purchase price for such equipment to be paid by NEPACCO to Hoffman shall be Four Hundred Ninety Thousand Dollars (\$490,000.00), which sum shall be paid as follows:

Twenty-Five Thousand Dollars (\$25,000.00) at the signing of this Agreement; Twenty-Five Thousand Dollars (\$25,000.00) sixty (60) days after the signing of this Agreement; the balance of Four Hundred Forty Thousand Dollars (\$440,000.00) to be evidenced by the note of NEPACCO in the amount of Four Hundred Forty Thousand Dollars (\$440,000.00), bearing interest at the rate of six per cent (6%) per annum, the principal to be paid in five (5) equal semi-annual installments of Eighty-Eight Thousand Dollars (\$88,000.00) each, the first installment payment to be made on July 1, 1970. In addition to the semi-annual installments of principal, interest at the above rate shall be paid on the entire balance then outstanding of said principal amount at the same time the principal payments are due. It is acknowledged that said interest rate of six (6%) per cent per annum is provided as a special inducement to NEPACCO to enter into this Agreement and to make timely payments as provided herein; and

that if there is a delay or default in the payment of any installment of the principal or interest payments when due, said special interest rate shall thereafter no longer be applicable, and in lieu thereof interest at the rate of one-half per cent (1/2%) above the "prime rate" (as the "prime rate" may be fixed from time to time by the Chase Manhattan Bank of New York City) shall thereafter be payable upon the total amount of the principal plus interest then due and in default. The note shall likewise provide that in the event of delay or-default in the payment of any installment of principal and/or interest extending for a period of ninety (90) days beyond the due date for such installment (except with respect to the payment due on July 1, 1970, as to which one hundred eighty (180) days shall be allowed) the holder of the note may, at its option, declare the entire remaining unpaid balance due and payable; that, in the event the note is placed in the hands of an attorney for collection, the maker of the note agrees to pay reasonable attorney's fees. This note shall be secured by such security instruments as may be required under the Uniform Commercial Code to give to Hoffman a first lien on all of that equipment described in Exhibit "B" hereto attached and made a part hereof, and NEPACCO agrees to execute any and all documents necessary to effect these purposes.

NEPACCO shall insure and keep insured the personal property described in Exhibit "B" with companies acceptable to Hoffman, against such risks and in such amounts as Hoffman may designate, with policies ac ceptable to Hoffman and payable to both Hoffman and NEPACCO as their interests may

appear, and shall furnish to Hoffman copies of all such policies of insurance or certificates of such policies.

- 2. Hoffman shall lease to NEPACCO a portion of a building situated on Hoffman's land at Verona, Missouri, and also one (1) acre of land lying immediately West of said building, in accordance with the terms, conditions and agreement of a Lease Agreement marked Exhibit "C" hereto attached and made a part hereof.
- 3. Hoffman agrees to furnish such production employees to NEPACCO as NEPACCO may deem necessary to man the production facilities to be utilized by NEPACCO at the Verona, Missouri, plant of Hoffman. No warranty is made by Hoffman as to the skill of such employees or that such employees can be obtained at any particular time.

As compensation for the furnishing of such production workers, NEPACCO agrees to pay Hoffman for the actual cost of such employees to Hoffman, plus a fixed fee of Six Hundred Fifty Dollars (\$650.00) per month. The actual cost shall include all costs to Hoffman of such employees of any and every description, including but not by way of limitation: wages, overtime premiums, holiday and vacation pay, sick pay, bonuses, shift premiums, jury pay, Workmen's Compensation, Missouri State Unemployment and FICA taxes. In addition, NEPACCO agrees that, in the event NEPACCO required Hoffman to furnish more than eight (8) production employees, the administrative fee of Six Hundred Fifty Dollars (\$650.00) per month shall be increased by Eighty Dollars (\$80.00) per month for each such additional employee, furnished on the average per month.

4. In addition to furnishing of production labor, Hoffman agrees during the term of this Agreement to furnish all maintenance and construction

labor to NEPACCO that may be necessary within the facilities at Verona, Missouri, leased by NEPACCO. NEPACCO shall compensate Hoffman for all actual costs of such labor furnished, as actual costs are defined in Paragraph 3 above, on the basis of actual costs times 3.4. However, in the event that a maintenance or construction man is assigned full time to the NEPACCO operation for one (1) consecutive week or longer, NEPACCO shall compensate Hoffman for all actual costs of such labor furnished, as actual costs are defined in Paragraph 3 above, on the basis of actual costs times 2.0. In the event Hoffman does not have the manpower or equipment to perform the maintenance and construction services required by NEPACCO, Hoffman, at its option, may contract out such maintenance and construction work, the cost of which will be paid by NEPACCO or advise NEPACCO that NEPACCO may contract out such maintenance and construction work, the cost of which will be paid by NEPACCO.

Hoffman shall at its option, upon request by NEPACCO, furnish ordinary parts and accessories in connection with maintenance and construction of the facilities leased by NEPACCO, and NEPACCO shall compensate Hoffman for the actual cost of such parts and accessories, plus ten per cent (10%) of such cost to cover overhead incurred by Hoffman in connection with the purchase, etc., of such parts and accessories. Hoffman shall not purchase major machinery or equipment that may be required by NEPACCO.

NEPACCO agrees to keep on deposit with Hoffman at all times during the term of this Agreement a sum of Two Thousand Dollars (\$2,000.00) to meet the semi
**Example of the sum of the semi
**Example of the sum may be adjusted from time to time as required to meet the demands of the business.

- 5. During the first three (3) years of this Agreement, NEPACCO agrees not to move any portion of its chemical production facilities located at Verona, Missouri, to any location other than the Verona, Missouri, plant of Hoffman, unless otherwise agreed to by Hoffman. In the event the chemical production facilities of NEPACCO are moved to any other location, either in whole or in part, after three (3) years from the date of this Agreement and continuing through the effective date of this Agreement, NEPACCO agrees to indemnify and hold Hoffman harmless from any claim, action, or cause of action made by any-labor organization and any employee or former employee of Hoffman arising out of the movement of the production facilities of NEPACCO. Hoffman shall have the right to require NEPACCO to secure this indemnity clause by a monetary escrow fund after three (3) years from the date of this Agreement.
- 6. NEPACCO recognizes Hoffman is a party to the attached labor agreement, which is designated Exhibit "D" and made a part hereof, and that such labor agreement governs the wages, hours and working conditions of all production and maintenance employees of Hoffman, and agrees that all employees employed under this agreement by Hoffman and utilized for the benefit of NEPACCO are subject to the terms of such agreement, and NEPACCO agrees to cooperate with Hoffman in every manner so as not to violate such agreement.

NEPACCO agrees that no employee of NEPACCO shall perform any production, maintenance or construction work, whatsoever, except training, emergency or experimental work, within the production facilities of Hoffman at Verona, Missouri, or those facilities leased from Hoffman by NEPACCO at Verona, Missouri, unless such production, maintenance or construction work is allowed by Hoffman in writing.

- 7. In the event that a reduction in the number of production or full time maintenance employees required in the facilities leased by NEPACCO from Hoffman shall cause Hoffman to lay off production or maintenance employees, NEPACCO will reimburse Hoffman for the cost of any benefit payable pursuant to the labor agreement by Hoffman to such laid off employees and for any increase in unemployment taxes payable by Hoffman caused directly or indirectly by such lay off. For example, Hoffman presently pays at the rate of 0.008 on the first Three Thousand Dollars (\$3,000.00) of wages of each and every employee as Missouri State Unemployment taxes. Any increase in this rate caused by layoffs directly or indirectly due to a reduction in the number of Hoffman employees furnished to NEPACCO, is to be paid by NEPACCO. In the event that an increase in this rate is attributable to operations of Hoffman outside the scope of this Agreement, NEPACCO will continue to pay the present rate of 0.008. However, if an increase in this rate is brought about by a change in either State or Federal regulations, NEPACCO agrees to accept the increased rate. To cover the contingencies provided for in this Paragraph, NEPACCO agrees to deposit a sum of One Thousand' Dollars (\$1,000.00) with Hoffman.
- 8. It is recognized by NEPACCO that the employees furnished by Hoffman, due to the seniority and bidding procedure set forth in the attached Exhibit "D", may be experienced employees, thereby causing Hoffman to hire new employees for its own chemical production at either Verona, Missouri, or Springfield, Missouri, and that as a result Hoffman would incur the cost of training such new employees for its own production facilities.

 To compensate Hoffman for the cost of training such new employees NEPACCO shall pay to Hoffman for each experienced Hoffman employee assigned to NEPACCO on a full time basis, the amount, if any, by which the hourly rate

of such experienced employee exceeds the hourly rate of the employee, if any, who replaces him, multiplied by the number of hours actually worked by such experienced employee while assigned to NEPACCO; provided, that such payment shall cease when the position vacated by the experienced employee at the time of his assignment to NEPACCO is filled with a qualified employee or when payment has been made for 2080 hours, whichever first occurs.

The parties agree that the terms of this Paragraph shall only apply for twelve (12) months from the date of transfer of the first employee to the NEPACCO operation.

9. In the event arbitration is had of any grievance filed under the attached labor agreement or any successor thereto and arising as a result of the utilization of Hoffman employees by NEPACCO pursuant to this Agreement, NEPACCO shall reimburse Hoffman for fees and expenses charged to it by the arbitrator, witnesses and counsel. In addition, if Hoffman is required to make any cash payment pursuant to a settlement or arbitration award involving any such grievance, NEPACCO shall promptly reimburse Hoffman for the amount of any such payment made pursuant to an arbitration award or to a settlement. However, Hoffman will consult with NEPACCO on any matter affecting NEPACCO.

10. Hoffman will bill NEPACCO at its office in Missouri/hir monthly for all monies due Hoffman by virtue of this Agreement, and such bill shall be due and payable within fourteen (14) days from the date of invoice. The parties shall jointly agree on an estimated cost in advance, and NEPACCO agrees to deposit with Hoffman a sum equivalent to six (6) weeks' payroll costs to meet the remonthly charges arising hereunder, and such sum shall

be decreased or increase. from time to time by estimate. In accordance with the business and volume of NEPACCO. In the event these deposits are not forthcoming and payment is not received of bi-monthly billings, Hoffman shall immediately notify NEPACCO in writing at its Missouri headquarters; and if the deposits or payments are not forthcoming within five (5) days from the date of receipt of such notice, Hoffman may cancel this Agreement and cancel the Lease Agreement, attached hereto as Exhibit "C", and a lien shall immediately be imposed upon any and all equipment, machinery, or property of any type owned by NEPACCO and contained on the premises of Hoffman or the leased premises of NEPACCO within Hoffman facilities.

- 11. This Agreement shall remain in effect only within such time as the Lease Agreement marked Exhibit "C" remains in full force and effect and shall be co-terminous with said Lease Agreement. Notwithstanding termination of this Agreement for any cause, the rights and obligations of the parties under Paragraphs 1, 5, 8, 9 and 10 hereof shall continue as appropriate to effect the purposes thereof.
- 12. It is mutually agreed between the parties that the employees furnished by Hoffman by virtue of this Agreement shall remain the employees of Hoffman, and all disciplinary action as to such employees shall be the responsibility of Hoffman and such responsibility shall in no manner be undertaken by any employee or agent of NEPACCO. However, NEPACCO does agree to assume the responsibility of furnishing the Hoffman Personnel Department with the written documents which may be required to maintain proper discipline.
- 13. It is further agreed between the parties that this Agreement shall not become effective until Hoffman shall notify NEPACCO in writing that Hoffman has made arrangements satisfactory to it with the bargaining agent representing its employees and concerning the matter covered by this Agreement.
 - 14. The immediate acquisition and possession by NEPACCO of the

nt described in Exhibit "B" herefo ached, the furnishing chemical production equi by Hoffman to NEPACCO of chemically oriented employees, and the leasing by Hoffman to NEPACCO of manufacturing space at the Verona, Missouri, facility of Hoffman will enable NEPACCO to begin its operations much sooner than would otherwise by possible, thereby saving NEPACCO the money and time necessary to obtain such facilities and employees by other means, which, it is agreed by the parties, has a monetary value of not less than Sixty-Seven Thousand Five Hundred Dollars (\$67,500.00). To further induce Hoffman to enter into this Agreement together with the Lease Agreement marked as Exhibit "B" hereto, and as part of the consideration therefor, NEPACCO shall transfer and deliver to Hoffman such number of fully paid and non-assessable shares of common stock of NEPACCO (not less than Forty-Five Thousand (45,000) shares) as shall equal two and seven tenths per cent (2.7%) of the outstanding common stock of NEPACCO (assuming the conversion of all convertible securities) at the date this Agreement is signed. NEPACCO will provide to Hoffman an opinion of counsel satisfactory to Hoffman that the stock of NEPACCO delivered at any time to Hoffman hereunder is duly authorized, validly issued and fully paid and non-assessable. NEPACCO will not, by amendment of its Articles of Incorporation or By-Laws or through any re-organization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities, take any action as will dilute or impair the rights of the holders of the Shares except to the extent already committed to Schneider. Without limiting the generality of the foregoing, NEPACCO will not issue or sell shares of its Common Stock except for a cash purchase price of not less than \$1.50 per share (based on the present capitalization of the Company). Notwithstanding the foregoing, NEPACCO may issue (a) shares upon exercise of presently existing stock options granted pursuant to a qualified or restricted Employee Stock Option Plan of NEPACCO, and (b) shares of its Common Stock in connection with the acquisition of a going business for a consideration not represented by \$1.50 cash per share (based upon the present capitalization of the Company) provided that the Board of Directors of NEPACCO shall have determined, in good faith, that the value of the business on a going concern basis so acquired is at least equal to \$1.50 per share of Common Stock (or an equivalent amount of other securities)

issued in exchange for such business.

14. Although by this contract Hoffman is furnishing to NEPACCO certain employees and certain services on the conditions hereinabove set forth, Hoffman shall have no control or direction (other than as in this Agreement and the Lease hereto attached set forth) over the operations and

activities of NEPACCO and nothing herein contained shall be construed as making NEPACCO and Hoffman joint venturers, agents or partners in NEPACCO's operations; in no event shall Hoffman be held responsible for any act or liability of NEPACCO or for or on account of any alleged license or patent infringements growing out of the operations of NEPACCO, and NEPACCO hereby agrees that it will protect, indemnify and hold harmless Hoffman, its successors and assigns, from all actions, proceedings, claims or demands by any person, firm or corporation whatsoever, and against all costs, damages or expenses-which Hoffman, its successors or assigns, may pay, sustain or incur by reason or in consequence thereof.

15. KG. This Agreement and the terms thereof shall be governed by and construed in accordance with the laws of the State of Missouri.

16.23. The covenants, terms and conditions of this contract shall be binding upon and for the benefit of the parties hereto, and the successors and assigns of each of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their authorized officers and their seals to be hereunto affixed, the day and year first above written.

HOFFMAN-TAFF, INC.

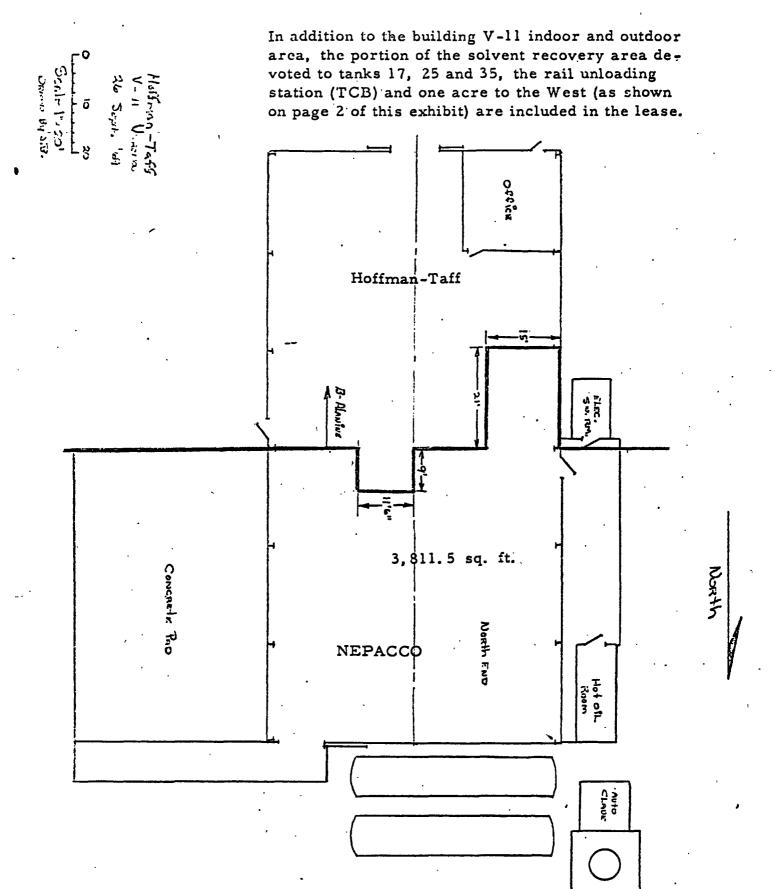
NORTHEASTERN PHARMACEUTICAL

& CHEMICAL CO., INC.

ATTEST:

LEASE AGREEMENT

EXHIBIT "A"



51659

Exhibit B LISTING OF EQUIPMENT

Located in and adjacent to Building V-II at Verona, Missouri Hoffman-Taff Plant.

Occupies a space of approximately 60' x 60' in a one story - Butler prefabricated metal clad, steel frame building with concrete floor.

	Outside East		
14A	steel storage tank, 7,500 gallon		
	steam heated and insulated		
14B	steel storage tank, 7,500 gallon		
	steam heated and insulated.		
14P	Barnes pump, 5 CU, mech, seal, 2,600 rpm, 2 h.p.		
	Spot ventilation system, 20L blower		
•	Phelps Mfg., Little Rock, Arkansas		
	Outside North		
1	TCB railcar unloading station and insulated,		
-	steam traced transfer lines		
21P	Duriron Pump, 6PBU, 1-1/2 x 1, 1,800 rpm, 2 h.p.		
17	Steel solvent storage tank, 7,500 gallon		
	8' diam. x 20' high		
17	Steel solvent storage tank, 7,500 gallon		
	8' diam. x 20' high		
17P	Barnes pump, 10 CU, mech. seal, 2,600 rpm, 2 h.p.		
25	Steel solvent storage tank, 7,500 gallon		
	$8'$ diam. \times 20' high		
25	Steel solvent storage tank, 7,500 gallon		
	'8' diam. x 20' high		
25P	Barnes pump, 10CU, mech. seal, 1,800 rpm, 2h.p.		
35	Steel solvent storage tank, 5,500 gallon		
	9' diam. x 15' high		
35	Steel solvent storage tank, 5,500 gallon		
	9' diam. x 15' high		
35P	Barnes pump, 10CU, mech. seal, 1,800 rpm, 2 h.p.		
36	Steel storage tank, 18,000 gallon		
_	steam heated and insulated		
	10' diam. x 36' long		
36P	Barnes pump, 10CU, mech. seal, 2,900 rpm, 3 h.p.		
36P2	Barnes pump, 10CU, mech. seal, 2,900 rpm, 3 h.p.		
•	(at unloading station)		
2	TCB steel storage tank, 18,000 gallon		
	insulated and steam heated with 10-		
	12" x 144" platecoil heaters and 2 - 33'		
	internal l" in 2" bayonet heaters		
	10' diam. x 36' long		

5 Nickel lined steel autoclave, Wyatt Industries, 1,200 gallon, 40" nickel, 3 blade retreat curve impeller agitator, 5 h.p., special 3-1/2" John Crane double seal and a nickel Yarway 2-inch pneumatic flush bottom valve installed in a metal clad, steel frame building. 5P Barnes pump, 10CU, mech. seal, 2,900 rpm, 3 h.p. Vent fan on autoclave building, Acme Three 2-inch ball valves, McCanna S 301-CS-R with Rumcon 300FS pneumatic actuators Two-4-inch Jordan valves, model 71 Diaphragm control FE CI One 2-inch Jordan valve, model 80 temp. control valve. 6 Steel tank, 12,000 gallon vertical 9' diam. \times 24'6" high, 1-3/16 - inch thick shell Durco pump DCI 6" x 4", 20 h.p. 6P Outside West Hot oil and electrical shed Three electrically heated oil transfer units, 240 volt, 125 kilowatt, 15 amp., 3 phase, Edwin Wiegand Co., Pitt., Pa. 12 Steel distillation column, 24" diam. x 30' high 12C Steel condenser, 725 sq.ft. 2' diam. x 18' long 12LT Steel tank, 18" diam. x 12" high

Electrical switch equipment in south electrical shed used to operate equipment in north half of building.

628N4-C, 100 to 300°F

Steel tank, 1,000 gallon

Steel tank, 4,500 gallon

Two Honeywell transmitters

Steel tank, 150 gallon

Ground Floor

Barnes pump, 5CU, mech. seal, 2,600 rpm, 2 h.p.

Barnes pump, 10CU, mech. seal, 2,900 rpm, 3 h.p.

3 TCB steel tank scale, 38" diam. x 72" long, 13,000 pound capacity, jacketed - hot oil heating system

3B TCB steel filter

16

16P

28A

37P

37

3A TCB Northern Nitralloy Rotary Gear pump in hot oil bath, B7288

ing graf promisers on the production of the control of the control

38 Steel tank scale, 1,000 gallon, 60" diam. x 103" long 13,000 pound capacity Rigidon fume scrubber, Heil model 733-M, 39 4837-AT, HCL-14 blower, 5 h.p., 3,000 cfm, FN-90 skelton packing 39A Steel fume scrubber, Phelps Mfg. 25k blower, 7-1/2 h.p. belt driven. 39P Barnes pump, 5CU Solvent meter, Rockwell, 1" 100-10-976-23 Air Compresser Instrument Panel Honeywell Multipoint Recorder 15305826-16-01-1-000-001-10 OPT 002 8 point recorder Chart 5206 0 to 150°C Honeywell Recorder 51311-2-10-10-1-0 0-100 Honeywell Recorder 51311-3-10-01-1-0 0 - 200Honeywell Recorder 51311-1-10-10-1-0 0-200 Honeywell Recorder 51310-0-10-01-1-0 0-500 Honeywell Recorder 51311-3-10-20-1-0 0-2004 Two rotameters Three temperature control instruments Two amp meters Four pneumatic valve actuators Six purge meters Three tank meters Mezzanine Steel reactor, 1,000 gallon, jacketed, Mixco agitator and drive, 7.5 h.p., domed bottom, side outlet

Steel condenser, Haynes, 188 sq. ft. 82-3/4" O. D. x 14 gauge x 12' long tubes 6" flange to tubes and 6" discharge 3" shell inlet and outlet

4P Durco DCI pump 1-1/2" x 1", Mark2, 5 h.p. Steel vacuum receiver, 500 gallon, horizontal tank 8 Barnes pump, 10CU, mech. seal, 2 h.p. 8P 8B Steel tank, 1,000 gallon Barnes pump, 5CU, mech. Scal, 2h.p. 9AP 9P Barnes pump, 5CU, mech. seal, 2 h.p. 9AT Steel tank, 1,500 gallon, vertical, conical top, funnel bottom, 53-1/2" diam. x 14'8" high 9BP Barnes pump, 5CU, mech. seal, 2,600 rpm, 2 h.p. 11 Steel tank, 3 sectional vertical tank, each section about 350 gallons, 46" diam. x 16' high Barnes pump, 10CU, mech. seal, 2,900 rpm, 3 h.p. 11P Fiberglass tank, 200 gallon, 32" diam. x 68" high 1 2S Model 2000, Resin type H-197-3, Ramco Mfg. 12P1 Barnes pump, 10CU, mech. seal, 3 h.p. 12P2 Barnes pump, 10CU, mech. seal, 3 h.p. 12SP Barnes pump, 5CU, mech. seal, 2 h.p. 12 PC 304 s.s. condenser, 24" diam. x 8' long 91 sq. ft. Mesco Steel tank, 5,000 gallon 15 Barnes pump, 10CU, mech. seal, 2,900 rpm, 3 h.p. 15P 22 Centrifuge C-20, Super-D-Hydrator equipped with electrical cycle control 22P Barnes pump, 5CU, mech. seal, 2,600 rpm, 2 h.p. 24 Steel tank, 1,500 gallon 24P Barnes pump, 5CU, mech. seal, 2,600 rpm. 2h.p. 26A Poly tank, 150 gallon 26AP Glass-lined Goulds Pfaudler pump, 1" x 2:1" Figure 3708, 1-1/2 h.p. 26P Barnes pump, 10CU, mech. seal, 2,900 rpm, 3h.p. ΕO Steel pressure tank, 50 gallon for pump seal on 28P Durco DCI pump, 3" x 1-1/2", durametalic 28P mech. seal, belt drive, 5 h.p. 29P Barnes pump, 10CU, mech. seal, 3,500 rpm 5 h.p. 29V Vacuum pump, Ingersol Rand Type 15 12" x 6", 350 rpm, 10 h.p. Vacuum pump, Nash TS-8, 2-stage, 5 h.p. 30V 30 Steel tank, 1,500 gallon 30P Barnes pump, 5CU, mech. seal, 2,600 rpm, 2 h.p. 31 Steel filter press, Shriver 13775 48 - 30" frames 1" thick, chambers 1-1/2" thick, with a 45 ton Hydro-Kloser Barnes pump, 10CU, mech. seal, 2,900 rpm, 3 h.p. 32P 34 Glass-lined Pfaudler reactor, 100 gallon ES 34P Durco pump, 6 PBU, 1-1/2" x 1", 1,800 rpm, 2 h.p. 34A Steel tank Lightnin mixer model ND-1A, 1/4 h.p., 316 s.s.

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411	No. 903946, 750 pound capacity		
9 A	304 s.s. reactor, 1,350 gallon, Cream City,		
/11	jacketed, Mixco Lightnin agitator model		
	229-REC-32, 3 h.p., 24 rpm		
9	Nickel lined reactor, 1,200 gallon		
7	Phil. Gear agitator, 7.5 h.p.		
9AS	Steel tank, 1,500 gallon, vertical, conical top,		
7.0.0	- · · · · · · · · · · · · · · · · · · ·		
ΔB	funnel bottom, 3'2" diam. x 7'6" high		
9B	Monel reactor, 1, 200 gallon, jacketed,		
0.0	Phil. Gear agitator, 7.5 h.p. (47.1 to 1), 37 rpm		
9C	Steel condenser, same as 4C		
21	Fiberglass tank, 200 gallon		
	38" diam. x 6-1/2' high		
22A	Steel tank, 2 sections, 53-1/2" diam. x 12'5" high		
24B	Steel tank, 100 gallon, 2' diam. x 5' high		
26	Glass-lined Pfaudler reactor, 1,000 gallon		
	RT66-0910 JCWVA, jacketed		
	5TWFVO variable speed agitator		
	Model FHV-45985C-BMD, 10 h.p.		
	Nucerite baffle, agitator, and head		
	Pfaudler literature 6115		
26B	Glass-lined receiver, 300 gallon		
26C	Karbate condenser, 100 sq. ft.		
26S	Poly tank, 150 gallon		
•	31" diam. x 48" high		
28	Monel reactor, 1,200 gallon, jacketed		
	Phil. Gear agitator, 20 h.p.		
	Agitator disconnected		
29	304 s.s. reactor, 2,500 gallon, jacketed		
	Lightnin Mixer model 218 TEC-7.52		
	(17.1 to 1) 100 rpm, 7.5 h.p.		
29C	Steel condenser, same as 4C		
30A	Steel receiver, 100 gallon		
	2'diam. x 5' high		
32 ′	316 s.s. reactor, 2,000 gallon, dimpled jacket.		
	Lightnin Mixer model 218TEDS-7.52		
	7.5 h.p., 100 rpm.		
32C	Steel condenser, same as 4C		
	Three solvent meters, Rockwell, bronze		
	1-1/2", ER 95, 113-14-976-23		
	Solvent meter, Rockwell		
	1", 100-10-976-23		
	-		

Three Two Pen Recorders, Taylor, 76JM217, chart OP128
-20 to 150°C
(installed with 26, 29, and 32)

September 24, 1969 Above equipment located and identified by John Lee, NEPACCO and Godfrey Moll, Hoffman-Taff.

NUCLEAR ENERGY LIABILITY EXCLUSION ENDORSEMENT-Broad Form)

Subject to the Provisions of paragraph III of this Endirection of it, a agreed that the
policy and any endorsement used theresists, repercises of whether credit makes the policy exclusions mappingable does not expect.

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- A. Hacer any Liability Coverage, to badily injury or property damage
 - gry with respect to which an insured under the policy is also as insured under a nuclear energy leading policy issued by duction. Energy branchy income in Acceptation, Mulual Atomic Energy brahasty Cacherosters or Northear Indianae a Association of Capada, or would be an income, under any ment policy but to its termoation upon exhaustion of its limit of hamility or.
 - (2) resulting from the hazardous properties of nuclear material and with respect to which (a) any person or cramization is request to maintain manufacture profession parsuage to the Atomic Energy Act of 1993 or any deviationality, thereof, or the insured is, or had this policy not been resulted which the insured is, or had this policy not been resulted which the control of the indennity from the United States of America, or a science thereof under the appearance under the distance of the following and appears they had, with any person or organization.
- B. Under any Medical Payments Courrage, or under any Loppiementury from hits prvision relating to first and to expenses involved with to pert to bad by inpury resulting from the hazardous properties of nuclear americal and relong but of the operation of a nuclear facility by any person or organization.
- C. Under any Liability Coverage, to builty injury or property damage-resulting from the hazardous properties of nuclear material, β
 - (1) the nuclear material (a) is at any nuclear facility moded n_{I} , or approximately over on behalf of, an insured or (b) has been distingted on dispersent the n_{I}
 - (2) the nuclear material is contained in spent fuel or waste as any time or uncontributional used, processed, stored, transported or disposed of by or an technic of an issured; or
 - (3) the boolly injury or property damage arries of the torned no to an ensured of services, materials parts or equipment in cornection with a orthogonal construction, maintenance, operation or use of any nectear facility, but or only facility is located within the United States of America, it, territorial or processing to Canada, this exclusion (3) applies only to property diamage to such nactear facility and any property thereat.

- If As a color this in freezement
 - "hardrough traperties" include remonstive, toxic or explosive groperies:
 "morters, material" me in a gource material, special nuclear material or georgeograf
 - "mission, fourerail" menn, course material, special nuclear material or desireduct material.
 - "Source material", "special nuclear material", and "hydroduct material" have seen not copys given from in the Atomic Energy Act of 1954 or in any law amendatory traces.
 - "spent fuel" means any fivel of ment or fuel component, solid or liquid, which has been used to exposed to radiation in a nuclear reactor;
 - "waste" on me any wither moreonal (I) containing hyproduct material and (2) resident from the operation by any person or organization of any auclear facility inclined within the octambion of nuclear facility under paragraph (a) or (b) thereof, "nuclear facility" mean.
 - the any nuclear reactor,
 - (b) the explorer to or device designed or used for (1) separating the isoteped of minimum or platennin, (2) processing or utilizing speak fuel, or (3, handling, processing or parked by waste.
 - (c) cay exponent or design used for the preserving fabricating or alleging of special nuclear material if at any time the total amount of such material in the custody of the incurred at the premises where each equipment or device to located condition of contains more than 23 grams of plutonium or uranium 23 or any composition thereof, or note than 250 grams of grams made.
 - (if) any threeting basis, curroration, premises or place prepared or used for the storage or disposal of waste.
 - and incomes the rate on which any of the freegoing is located, all operations ern ou test in connected and di premises used for our higherations;
 - "number feactor" nodes, has apparatus designed or used to sustain number fession in feelt on protony obtain rejection, or to contain a protont many of fessionable statems.
 - * property damage?" includes all from of radioactive contamination of property.
- III The province, of this enforcement is not apply to (a) family actimished, comprete arising position and familiar construction are permitted insurance not to (in initially arising lost of the lowest top, constrained or use of any automobile principally garaged at the timed in the State of New York.

In Witness Whereof, the company has caused this endorsement to be signed by an executive vice president and a secretary.

Gloffrey Savey

Executive Vice President

LIAB. 6624B

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REGIONAL OFFICE
KANSAS CITY MO.

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